

DSMC & Boeing Cultivate An Unconventional Educational Partnership Beyond the Norm

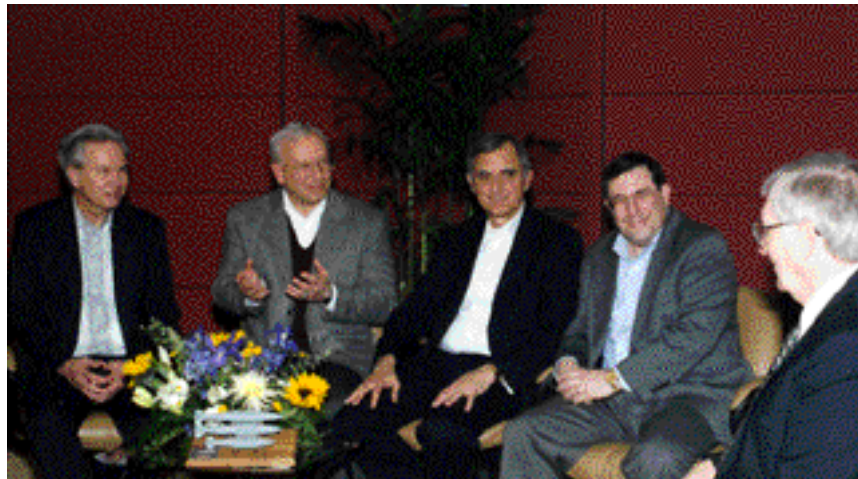
*"Just in Time, Just for Me,
Just Enough, Anytime, Anywhere, Anyone"*

DR. BERYL A. HARMAN, CPCM • DANIEL G. ROBINSON

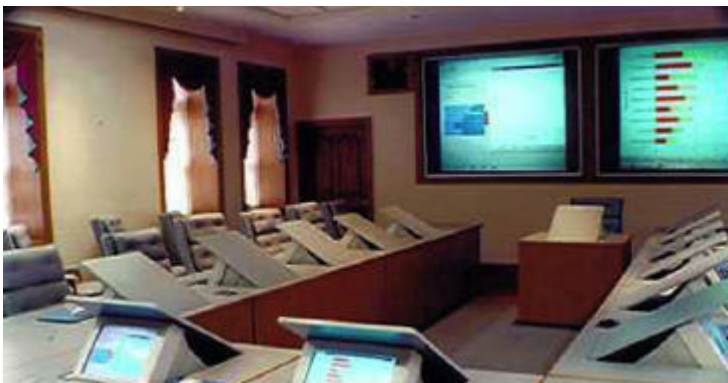
The Research, Consulting, and Information Division (RCID) of the Defense Systems Management College (DSMC), in partnership with the Boeing Company – Office of Lifelong Learning, has just developed a new educational product to support the current initiative of just-in-time training. This product is a three-day workshop, assembled around an in-depth case study on Acquisition Reform, to assist in implementing change in the acquisition process.

A Joint, Interactive, Unique Learning Experience

This joint effort between DSMC and Boeing is designed to develop a unique learning experience to help individuals and Integrated Product Teams (IPT) learn and apply Acquisition Reform prin-



PANEL OF JDAM GOVERNMENT AND INDUSTRY PROGRAM MANAGERS. PICTURED FROM LEFT: CHARLES DILLOW, INDUSTRY JDAM PROGRAM MANAGER, THE BOEING COMPANY; DR. PAUL G. KAMINSKI, FORMER UNDER SECRETARY OF DEFENSE (ACQUISITION & TECHNOLOGY); OSCAR SOLER, GOVERNMENT JDAM PROGRAM MANAGER, AERONAUTICAL SYSTEMS CENTER; RC SYLVESTER, ACTING ASSISTANT DEPUTY UNDER SECRETARY OF DEFENSE (SYSTEMS ACQUISITION); DAN ROBINSON, ASSOCIATE DEAN FOR CONSULTING, RCID, DSMC.



DR. CYNTHIA INGOLS, A MANAGEMENT CONSULTANT AND GRADUATE OF HARVARD SCHOOL OF EDUCATION, DEVELOPED AND COMPLETED THE JDAM CASE STUDY USING THE HARVARD METHOD OF CASE STUDY RESEARCH.

DSMC MANAGEMENT DELIBERATION CENTER.



Harman is a Professor of Systems Acquisition Management, and Robinson the Associate Dean for Consulting, respectively in the Research, Consulting, and Information Division, DSMC.



THE JOINT DIRECT ATTACK MUNITION (JDAM) ON DISPLAY. PICTURED FROM LEFT: DR. JAMES PRICE, DEAN, RCID, DSMC; DR. CYNTHIA INGOLS, MANAGEMENT CONSULTANT; LISA BREM, ASSISTANT TO DR. INGOLS; NAVY CAPT. BOB VERNON, DEAN, SPMD, DSMC.



DEVELOPED BY BOEING, THE JOINT DIRECT ATTACK MUNITION (JDAM) IS A GUIDANCE KIT THAT CONVERTS EXISTING UNGUIDED FREE-FALL BOMBS INTO PRECISION "GUIDED" MUNITIONS. Photo courtesy The Boeing Company



THE BOEING COMPANY EXHIBIT AT THE SEVENTH SEMI-ANNUAL PEO/SYSCOM COMMANDERS CONFERENCE, DSMC, APRIL 1998. PICTURED FROM LEFT: NAVY CAPT. BOB VERNON, DEAN, SPMD, DSMC; DR. JAMES MC MICHAEL, DIRECTOR OF EDUCATION, TRAINING AND CAREER DEVELOPMENT, OFFICE OF THE DEPUTY UNDER SECRETARY OF DEFENSE (ACQUISITION REFORM); BARBARA HETHCOTE, PRINCIPAL SPECIALIST OF [THEN] MCDONNELL DOUGLAS LEARNING CENTER; DR. JAMES PRICE, DEAN, RCID, DSMC.

ciples and practices. Built around a case study using the Joint Direct Attack Munition (JDAM) program as the centerpiece, this learning experience will demonstrate how technology can be used to help change the way we educate the Acquisition Workforce (AWF).

The interactive learning experience can be held in DSMC's Management Deliberation Center (MDC), which incorporates the latest interactive hardware/software capabilities, providing students a state-of-the-art interactive learning environment.

The Center is currently used for compiling group session quantitative and qualitative data as an aid to complex problem solving. The tools resident on the systems, along with experienced facilitators, will provide students a fully interactive learning environment.

By using interactive software, videos, case studies, and other learning tools like action research, students have the opportunity to draw on their experiences and the experience of others as a means of stimulating their own learning environment. Assisted by experienced process facilitators, students can use the latest education and information technology to process current innovations and apply them to program issues on a real-time basis. Videos, for example, can be used to provide real-time good news stories as a learning tool, and case studies can stimulate creativity in dealing with the issues and realities of real-life situations.

A Case Study in the Making

So how did this all come about? The impetus for developing the workshops came from the Spring 1997 PEO/SYSCOM Commanders Conference held at DSMC. At that conference, James Sinnett, Vice President-Technology, Advanced Systems and Technology, McDonnell Douglas Corporation, spoke actively in support of government-industry training in the area of Acquisition Reform and recommended the government institute an outreach program on education and training.

Dr. James McMichael, Director of Education, Training and Career Development for the Deputy Under Secretary of Defense (Acquisition Reform), intrigued by this idea, discussed with Sinnett the possibility of an educational partnership using experiential case studies as a stimulant to educational success.

Sinnett, impressed by the achievements of the teaming process between McDonnell Douglas Corporation and the government on the JDAM program, suggested that government and industry form an alliance to develop a JDAM case study.

Since the Defense Acquisition University was also interested in the use of case studies as a means to share lessons learned and to provide insight to all sides of an acquisition relationship, McMichael concurred and suggested that DSMC could add value to the project. Dr. James Price, Dean of RCID, was contacted shortly thereafter and asked to develop, in conjunction with the McDonnell Douglas Corporation, a learning experience drawing on the JDAM program that would benefit both industry and government.

Development began in May of 1997 with a core team consisting of Dr. James Price, Dean RCID; Dan Robinson, Associate Dean of Consulting, RCID; and Dr. Beryl Harman, Professor of Systems Acquisition Management, RCID, representing DSMC. Representing McDonnell Douglas Corporation were Barbara Hethcote, Principal Specialist of [then] McDonnell Douglas Learning Center; and Cheryl Kerr, Engineering Manager, Advanced Systems and Technology. Shortly thereafter, McDonnell Douglas Corporation became part of the Boeing Company.

The Case Study Selection — Why JDAM?

Why is JDAM considered an interesting case study and potential learning tool? The entire acquisition community faces challenges to reduce or eliminate military requirements that mandate unique processes within defense production facilities. The desire is to take advantage of the commercial marketplace by de-

livering new systems into the hands of warfighters within commercially available cycle times, not the previous average of 12 to 18 years' development time for a major DoD weapon system.

DoD and industry's senior acquisition executives and leaders firmly believe that future military advantage will belong to those who capture state-of-the-art technology, get it into weapon systems, and successfully field those systems first. Toward that end, the Federal Acquisition Streamlining Act (FASA) of 1994 charged the Services to identify specific, unique military systems as Defense Acquisition Pilot Programs (DAPP). These pilot programs are test beds for the use of commercial processes, practices and procedures, and are charged to demonstrate new and innovative approaches.

The JDAM program was selected as a DAPP and afforded statutory relief under FASA to accomplish these objectives. As a result, the processes and the collaborative techniques the industry-government IPTs used to implement JDAM epitomize how the philosophy of Acquisition Reform can be put into practice and contribute to reduced contract costs, improved development and delivery schedules, and gains in efficiencies.¹

The JDAM program (converting dumb bombs to smart weapons using commercial practices) started as a traditional procurement process in 1991. In 1994, the program was streamlined using the principles, practices, and processes of Acquisition Reform, with extraordinary results. Through a performance-based partnership approach between government and industry, the program was able to cut development costs by 25 percent and program staff by 60 percent, and projected a 33-percent savings in production and delivery schedule, and 67-percent savings in product price.

This potentially reduced the overall program cost from \$5.5 billion in 15 years to \$2.5 billion in 10 years. Managing this program required a complete change in mind set for both industry and govern-

ment. As the Boeing Company assumed responsibility for performance, both parties recognized two key management strategies: *that fewer people get better results because they don't create extra work for each other; and collaboration, to be successful, requires an open commitment to shared goals.*

The JDAM approach to Acquisition Reform is not considered a model in steps and methods. Rather, the approach is a philosophy with certain goals that can be applied to any program; i.e., manage at the performance level, have few requirements and targets, emulate commercial practices, have a collaborative relationship with contractors, be a coach not a policeman, and create a sense of urgency by committing to ambitious goals.

Using the JDAM experience as a learning tool and starting point is a way to help students explore innovative ways to accomplish their own programs and motivate students to use good business sense in their day-to-day operations.

The major objective of the learning experience is for students to benefit from the study of lessons learned throughout all aspects of the JDAM program. Specifically, students learn how to:

- maximize the overall benefits of Acquisition Reform when planning and managing a military program;
- develop, as members of new program teams, an understanding of the Acquisition Reform philosophy;
- apply Acquisition Reform principles and practices early in the planning process; and
- accelerate the implementation of innovation within their own program structures.

In fact, this learning experience is a multi-purpose package designed to provide just-in-time training to acquisition teams planning and executing individual programs, and as a way to gain insight into the latest DoD initia-

tives as part of a continuing education process.

A Word About the Workshop

The government and Boeing will offer two different versions of the workshop. The one offered through the Boeing Company will primarily focus more on the prime/subcontractor relationship, and how teaming and collaboration can significantly aid the execution of the program. The one offered through DSMC will focus more on the government-industry teaming process as it relates to strategies and managing an acquisition program.

In either case, Boeing and DSMC will aim at providing the three-day workshop to intact program teams. The idea is to move away from a paradigm of attending a class at a specific point in time, to one of providing the tools to the people just-in-time, when they are needed the most.

Benefits Expected

Specific benefits are achievable through this type of workshop:

Realism, Live Scenarios. Primarily, the teams participating in these workshops – a combination of government and industry personnel – experience real applications, using live scenarios.

Development of In-house Expertise. Through joint development, the teams receive multi-perspective insights into the application of commercial practices and the implementation of Acquisition Reform. This allows them to collectively develop in-house experience and use that in-house expertise for realism, accuracy, and connection to the business.

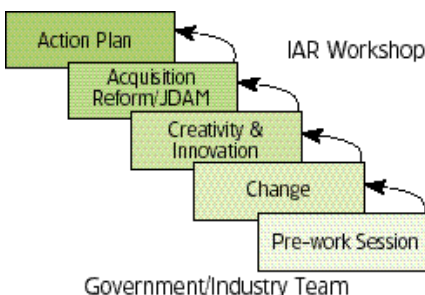
Case Study Method. The workshop uses the case study method and a series of videos to focus on this real-time application and to nurture collaborative relationships between the government and industry.

Accelerated Implementation of Acquisition Reform. Lastly, the workshop is an aid to accelerated implementation of

Acquisition Reform by affording students an opportunity to gather and capture the essence of lessons learned.

Ultimately, these workshops will provide students an understanding of what works, and what does not work in an Acquisition Reform environment.

Defining the Workshop Structure



How did DSMC and Boeing go about developing the workshop, and what does it include? The core development team met at both DSMC and the Boeing Life-long Learning Center to brainstorm and develop a workshop structure that will be applicable to the learning needs of both industry and government AWF professionals. The need was to develop a learning experience to help these professionals understand, apply, and accelerate innovation through the implementation of Acquisition Reform.

In attempting to make this a total learning experience, the core team obtained inputs from members of the Office of the Secretary of Defense, industry, the JDAM Program Office, and the DSMC faculty. These activities assisted the development team in determining the needs of the AWF, developing objectives, and determining a meaningful structure for the experiential workshop.

Each workshop begins with a "pre-work session." This provides the team members time to review the case study and determine their acquisition needs. This pre-work session is important because it introduces the student to the concept of the case study method and explains how that method will be beneficial to the learning environment.

Part I. The pre-work session also prepares the student to step forward into Part I of the workshop, which focuses on the issue of "change" and covers such topics as the change agent, change sponsorship, change strategy, and changing paradigms. Instructors lead students into the various aspects of change by discussing such topics as the partnering process, identifying barriers, and clarifying major interrelationships.

Part II. The team then steps to Part II, "creativity and innovation," which is a set of exercises designed to help team members understand the meaning of thinking beyond the norm and opening their minds to possibilities within their own planning process.

Part III. Stepping to Part III, the team then focuses on the issues and methods available through "Acquisition Reform." Using experiential video clips, technology, and the case study method, the team develops an understanding of the reform philosophy, the latest initiatives, current innovations, business barriers, and the consequences or unintended consequences of various applications.

Part IV. Once understood, the team steps to Part IV where they collectively develop new, innovative approaches for future program actions or strategies on their program. Over half of the program is devoted to working on the team program itself.

Adding Meaning Through the Case Study Method

What exactly does a case study truly lend to the process? In essence, a case study methodology requires three fundamental shifts in perspective:²

- First, a shift in the balance of power – it moves students from an autocratic classroom environment where the instructor is all powerful, to a more democratic environment where students share in the decision-making process.
- Second, a shift in the locus of attention – it moves students from a concern with the material alone to an equal focus on the content, classroom

process, and the learning environment. This allows students to obtain knowledge for themselves and to begin to understand potential possibilities for implementation.

- Third, a shift in instructional skills – it moves students from declarative explanations to questioning, listening, and responding, which helps to develop interpersonal skills and establishes a sensitivity to the need for team development.

Recognizing that JDAM is an on-going program, it was considered important to document in a case study the history, changes, and measures of effectiveness that were most instrumental to the execution of JDAM.

The Case Study

Dr. Cynthia Ingols, a management consultant with Corporate Classrooms, Inc., Cambridge, Mass., developed and completed the case study. Ingols specializes in developing relationships, creating highly interactive training and meeting events to parallel participative management strategies, and diagnosing organizational barriers to innovation and change. She is a graduate of Harvard School of Education and schooled in the Harvard Method of case study research.

To begin, Ingols performed the data collection by developing a structured interview guide, followed by one-on-one interviews with JDAM personnel from both government and industry. This included perceptions as well as historical information from select personnel within OSD and Office of the Secretary of the Air Force. This case study forms the apex of the experiential learning environment.

Video Presentations

Recognizing that the case study is just one medium with which to introduce the idea of change, DSMC and Boeing decided to supplement the presentation though a series of video clips that document good news stories and the current thrust of Acquisition Reform within DoD.

The participants in the video clips were: a team from the F-15 Program; Dr. Paul

G. Kaminski, former Under Secretary of Defense (Acquisition and Technology); Bill Mounts, Director of International and Commercial Systems for the Deputy Under Secretary of Defense (Acquisition Reform); David Drabkin, Assistant Deputy Under Secretary of Defense for Acquisition Process and Policies; and a panel consisting of the JDAM industry and government program managers – Charles Dillow, industry JDAM Program Manager; Oscar Soler, government JDAM Program Manager; Kaminski; and Ric Sylvester, Acting Assistant Deputy Under Secretary of Defense (Systems Acquisition).

Beta Test

On March 12-13, an abbreviated workshop was piloted at the Boeing Office of Lifelong Learning. Dr. Ingols presented the case study using the Harvard Method, supported by the original program managers responsible for the JDAM strategy – Charles Dillow, The Boeing Company; and Terry Little, Joint Air-to-Surface Stand-off Missile (JASSM) Program Manager. The presentation was an unmitigated success.

At the conclusion of the presentation, participants submitted helpful comments and suggestions, which were evaluated and taken into consideration as part of the final workshop design.

Change is Constant

So what was learned as a part of this process? *That change is constant.* As DoD embarks on a cultural shift in its way of doing business, both DSMC and Boeing are keenly aware of the ever changing climate of Acquisition Reform, and the need to constantly change and adapt their education and training to an increasingly sophisticated and technologically advanced AWF.

DSMC and Boeing have stepped up and taken the risk of developing non-traditional methods of training and education to meet the needs of the AWF.

Expected Outcomes

Perhaps you're wondering when and where *you* can sign up for this interactive, educational experience. Intact, established teams, or even teams currently

in the making, may contact Flo Brueser at DSMC (703-805-2728) to schedule a workshop. This includes teams at the beginning phase of a program, teams about to embark on a major modification, or teams merely interested in restructuring an existing program.

Whatever phase of your program, if your team is interested in some just-in-time training in implementing Acquisition Reform principles and practices, pick up the phone. And in the words of David Drabkin, "Just do it!" Start now so that Acquisition Reform can be a part of your acquisition strategy in the near future.

As for the future, DSMC anticipates offering the JDAM case study effort as a part of its Advanced Program Managers Course and as an elective for its Executive Program Managers Course.

One Last Word

A new motto is taking shape within the educational environment: "Just in Time, Just for Me, Just Enough, Anytime, Anywhere, Anyone." This motto recognizes the need to leverage technology to provide the best experiential methods and learning experiences when needed by acquisition teams.

This is not an easy transition, but a step-by-step process, using all of the knowledge and techniques available. In the words of Terry Little, JASSM Project Manager, "People are the key. We have to find the ways to work together." This is one instance where educators and industry are not waiting for things to happen – they are, in fact, partnering to make them happen!

REFERENCES

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